DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-015561
Date Inspected: 13-Jul-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 700
OSM Departure Time: 1900
Location: Shanghai, China

CWI Name:	N/A			**CWI Present:**	☐ Yes	☑ No	
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☐ Yes	☐ No	☑ N/A
Electrode to specification:	☐ Yes	☐ No	☑ N/A	**Weld Procedures Followed:**	☐ Yes	☐ No	☑ N/A
Qualified Welders:	☐ Yes	☐ No	☑ N/A	**Verified Joint Fit-up:**	☐ Yes	☐ No	☑ N/A
Approved Drawings:	☐ Yes	☐ No	☑ N/A	**Approved WPS:**	☐ Yes	☐ No	☑ N/A
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A

Bridge No: 34-0006
Component: OBG Trial Assembly

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 8AW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm flange to the Side Panel at Panel Points (PP) 62, PP 63 and PP 64 for Segment 8AW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00423.

The bolt sizes used were M24 x 65 RC Lot # DHGM240002 and the final torque value established was 573 N-m.

The manual torque wrench used to verify tension was S/N XO2-779.

Segment 8CW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Partial Height Diaphragm

flange to the Side Panel at Panel Points (PP) 68, PP 69 and PP 70 for Segment 8CW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00423.

The bolt sizes used were M24 x 65 RC Lot # DHGM240002 and the final torque value established was 573 N-m.

The manual torque wrench used to verify tension was S/N XO2-666. Please reference the pictures attached for more comprehensive details.

Segment 8AW to Segment 8BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Points (PP) 64 and PP 65 for Segment 8AW to Segment 8BW at Cross Beam and Counter Weight side. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00421.

The bolt sizes used were M24 x 70 RC Lot # DHGM240003 and the final torque value established was 543 N-m.

The bolt sizes used were M24 x 95 RC Lot # DHGM240021 and the final torque value established was 540 N-m.

The manual torque wrench used to verify tension was S/N XO2-779.

Segment 8BW to Segment 8CW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Longitudinal Diaphragm to Longitudinal Diaphragm between Panel Points (PP) 67 and PP 68 for Segment 8BW to Segment 8CW at Cross Beam and Counter Weight side. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00421.

The bolt sizes used were M24 x 70 RC Lot # DHGM240003 and the final torque value established was 543 N-m.

The bolt sizes used were M24 x 95 RC Lot # DHGM240021 and the final torque value established was 540 N-m.
The manual torque wrench used to verify tension was S/N XO2-779.

Segment 8AW to Segment 8BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Rib to T-Rib at transverse splice between Panel Points (PP) 64 and PP 65 for Segment 8AW to Segment 8BW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00421.

The bolt sizes used were M22 x 65 RC Lot # DHGM220105 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 70 RC Lot # DHGM220017 and the final torque value established was 487 N-m.

The manual torque wrench used to verify tension was S/N XO2-666.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge after bolting.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Segment 8BW to Segment 8CW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the T-Rib to T-Rib at transverse splice between Panel Points (PP) 67 and PP 68 for Segment 8BW to Segment 8CW. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00421.

The bolt sizes used were M22 x 65 RC Lot # DHGM220105 and the final torque value established was 380 N-m.

The bolt sizes used were M22 x 70 RC Lot # DHGM220017 and the final torque value established was 487 N-m.

The manual torque wrench used to verify tension was S/N XO2-666.

The QA Inspector measured the Vertical Offset using 1(One) Meter Straight Edge after bolting.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Lift 7 East

This QA Inspector along with Mr. Manikandan Murugan photographed the temporary Sea-fasteners at various locations on Segment 7AE at Panel Points (PP) 48 and PP 49; Segment 7BE at PP 50, PP 51 and PP 52 and Segment 7CE at PP 53, PP 54 and PP 55 prior to the shipment of (Voyage 4) en-route to Yerba Buena Island, California, USA. The following locations are where the photographs were taken and the photographs are available for review upon request.

- Intermediate Corner Assembly diaphragm (Cross Beam and Bike Path Side).
- Corner Assembly (Cross Beam and Bike Path Side).
- Longitudinal Diaphragm (Cross Beam and Bike Path Side).
- Lower and Upper Chevron (Cross Beam and Bike Path Side).
- Floor Beam (Cross Beam and Bike Path Side).
- Sea fasteners installed on the Bottom Panel.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer